RDM Connect™

RDM Connect™ Installation Guide

Revision B

RDM Connect™ Installation Guide Rev. B

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This manual, the RDM Connect™ Installation Guide, is intended for all units belonging to the Connect family of products.

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Part Number

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RDM Corporation
www.rdmcorp.com

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Compliance Statements

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning: Changes or modifications not expressly approved by RDM could void the user's authority to operate the equipment.

All units covered by this manual have no user-serviceable parts inside. In the event repairs are ever needed to any RDM product, they should be performed by RDM Corporation or an authorized representative of RDM Corporation. For information please contact RDM Corporation, 4-608 Weber Street North, Waterloo, Ontario, Canada N2V 1K4, at 1-800-567-6227, or RDM's US service agent below.

US Service Agent

William Buser
(703) 286-5734
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Introduction

The RDM Connect™ scanner is a cost-effective, feature-rich, source item image and card processing solution. Using RDM's industry leading progressive MICR method and imaging technology, the RDM Connect scanner is ideal for Check Electronification, Check Cashing, and Walk-in Bill Payment applications. The RDM Connect scanner provides Remote Deposit Capture features as well as features that are suitable for card-based processing.

Requirements

- The RDM Connect unit is for indoor use only. Keep the RDM Connect **dry**; avoid areas of high humidity.
- **Do not remove any cabinetry** other than the areas specified in this guide. Removing cabinetry other than the areas specified in this guide will void the warranty.

Recommendations

- This unit may be installed and configured by a distributor (reseller) other than the original manufacturer. Record all distributor contact information for future reference.
- **Save the original box** and packing material. Reuse them if the unit must be shipped to a new location.
- **Position the unit** so that the operator has easy access to the document path and a clear view of the LED. Do not put the unit close to a heat source, in direct sunlight, or close to any device that can emit electromagnetic interference, such as a computer monitor or power adapter.

RDM Connect Models and Features

The RDM Connect scanner comes in several different models. Each model includes a certain set of features. Compare your model to the following list to determine which features are included with your scanner.

Model	Description
EC9001	Auto-Feed scanner (Franker and Card Scan Enabled
EC9002	Auto-Feed scanner (Franker and Card Scan Enabled) with MSR
EC9003	Auto-Feed scanner (Franker and Card Scan Enabled) with Endorser
EC9004	Auto-Feed scanner (Franker and Card Scan Enabled) with Endorser and MSR
EC9011	Single Feed scanner (Franker and Card Scan Enabled
EC9012	Single Feed scanner (Franker and Card Scan Enabled) with MSR
EC9013	Single Feed scanner (Franker and Card Scan Enabled) with Endorser
EC9014	Single Feed scanner (Franker and Card Scan Enabled) with Endorser and MSR

RDM Connect Launch Button

The RDM Connect scanner launch button is a hotkey that can be set to open a document or Web site, or start an application. Your RDM Connect launch button has been configured according to the requirements of your application.

Developers can find information about programming the launch button in the Help File that is included with the ADK.

In addition, the launch button indicates the status of the scanner with its illuminated LED. For more information, see “Status Signals” on page 20.

The launch button is labelled with the RDM Connect logo. If you want your own logo applied to the launch button, contact your solution provider or reseller for details.

Setting Up the RDM Connect Scanner

To set up the RDM Connect scanner, do the following:

- Choose a Location
- Unpack the Shipping Box
- Inspect the Unit's Features
- Insert the Franking Acknowledgement Printer and Endorser Inkjet Printer Cartridges, if they are included on your scanner.

Check List

Your shipping box should include the following items:

- RDM Connect scanner
- USB cable
- Power supply
- (Optional) Franking and acknowledgement printer
- (Optional) Inkjet cartridge

Choose a Location

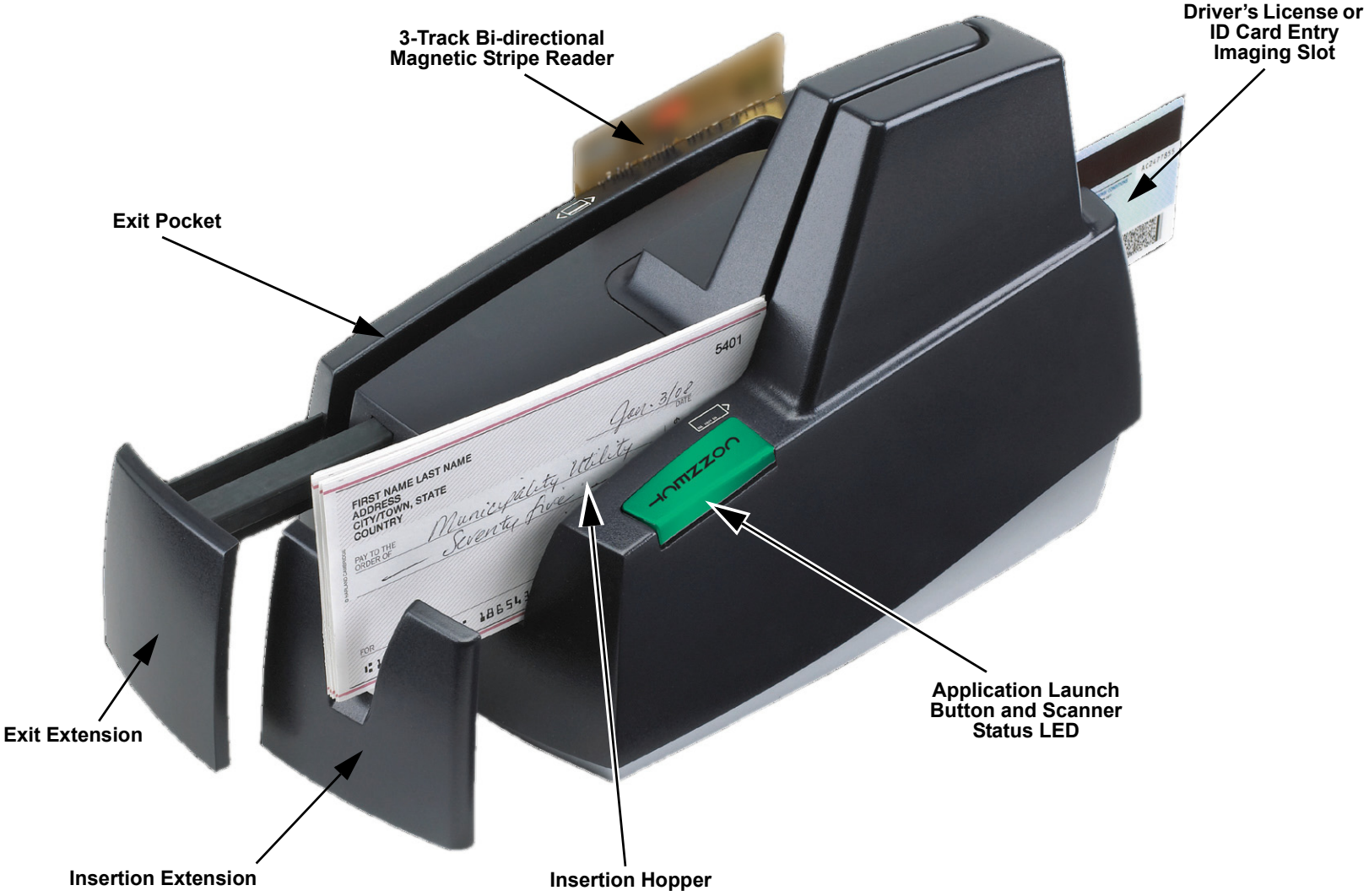
Locate your scanner in a place that:

- Has a flat surface, such as a counter top or table.
- Is convenient for the scanner operator.
- Offers adequate ventilation and protection from elements such as heat, dust, oil, or moisture.
- Is close to the hosting PC (USB 2.0 high speed connection required).
- Is close to a power supply.

Unpack the Shipping Box

1. Open the top of the box.
2. Remove and unwrap the items.
3. Save the box and packing material for future use.

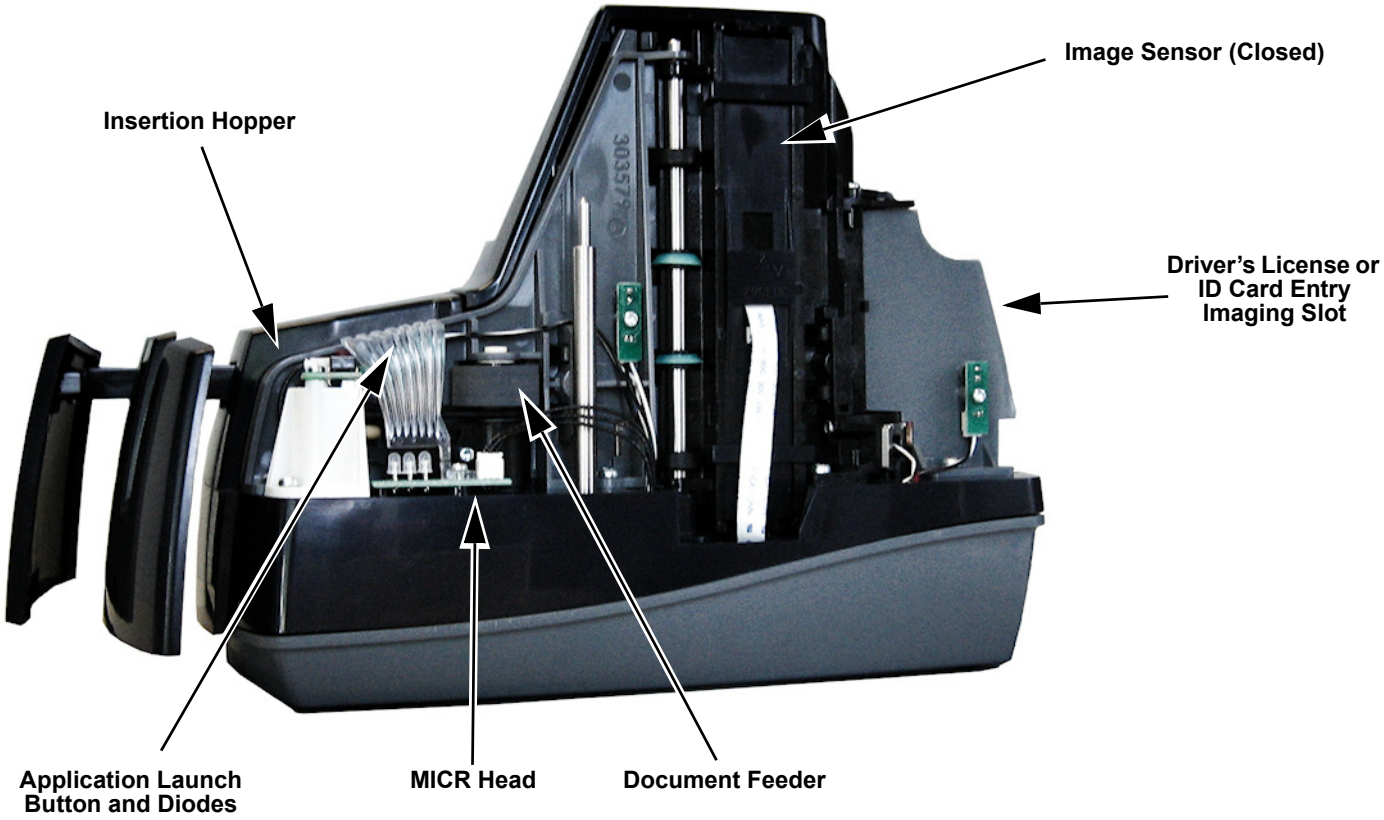
Inspect the Unit's Features



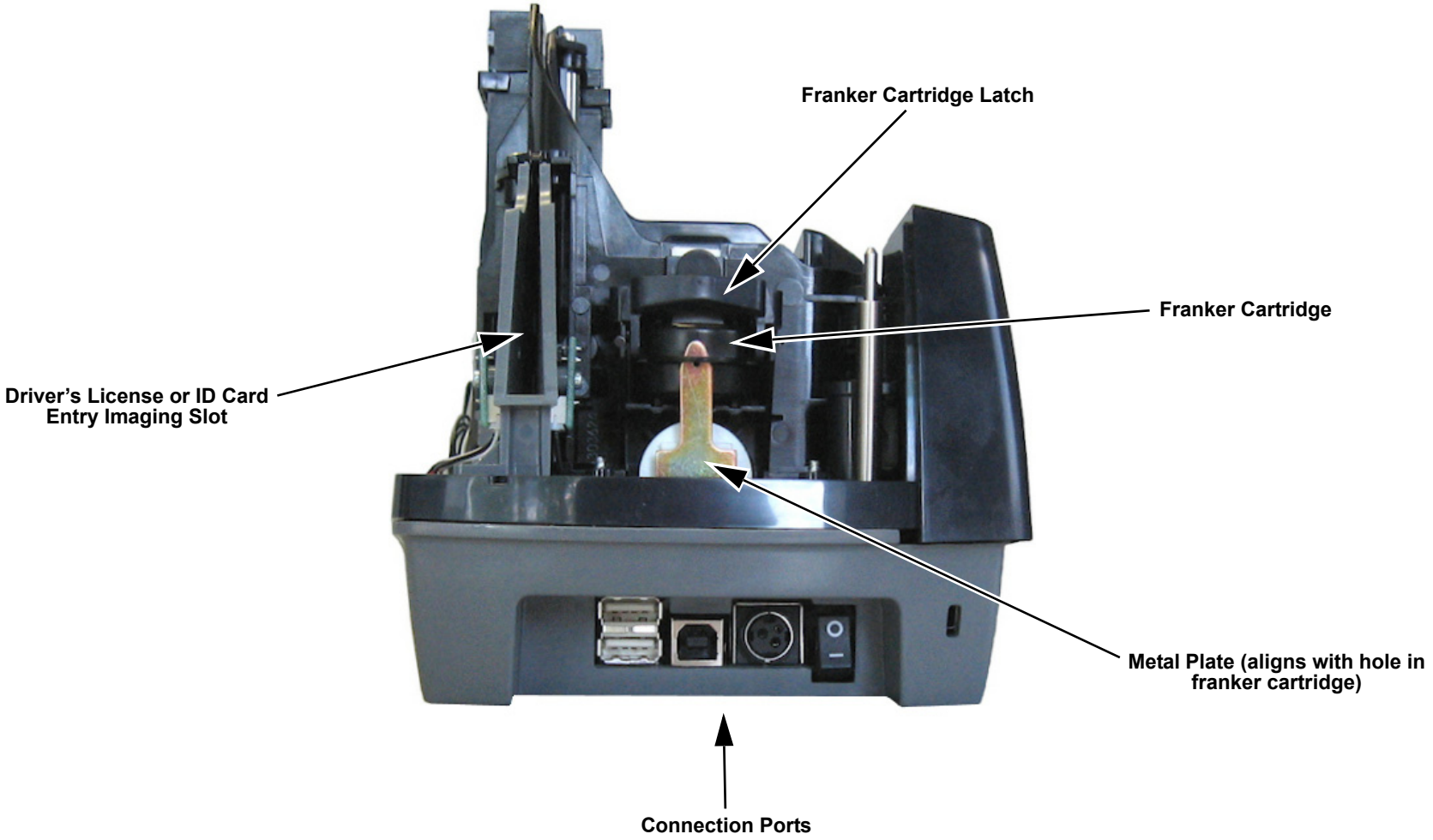
Internal Components

Inside the Front Cover - Side View

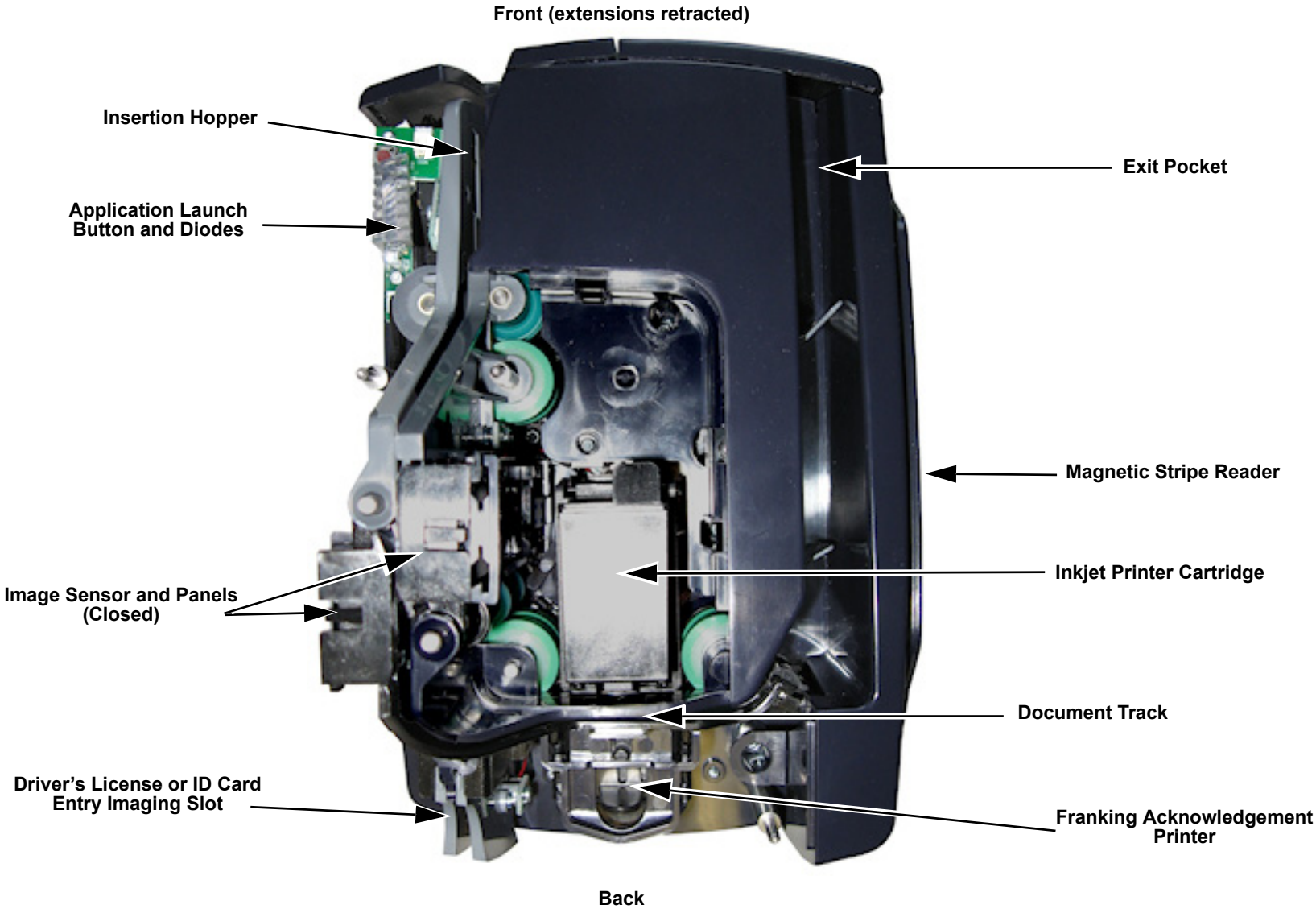
The document feeder is on auto-feed models only.



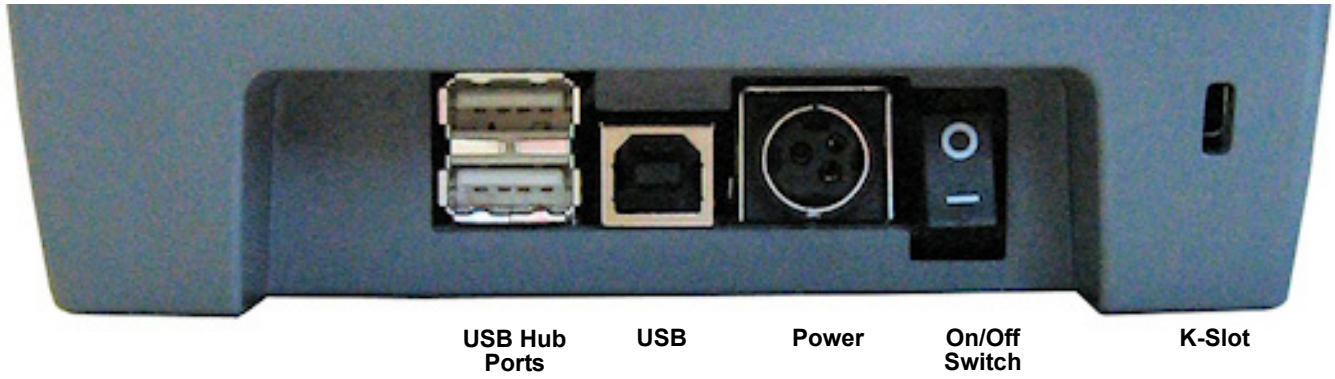
Inside the Front Cover - Back View



Inside the Front Cover and Endorsement Printer Cover - Top View



Connection Ports



Connector	Description
USB Hub Ports	Use this port to connect optional peripheral devices such as a PIN entry device, or to recharge a mobile device such as a phone.
USB	High-speed 2.0 (480 Mb/s). Use this port to connect to a PC.
Power	Connect the power adaptor to this port. You must use the RDM A to B connector.
On/Off Switch	Powers the scanner on or off independent of the PC.
K-Slot	The K-Slot or Kensington® Security Lock lets you secure the unit with a cable (not provided) that locks into the slot to prevent the unit from falling. Cables can be purchased from your local computer supply store.

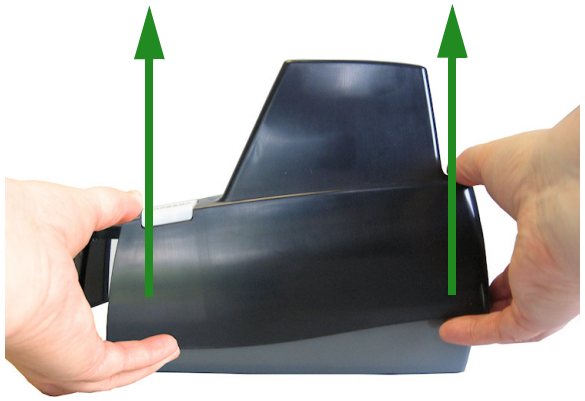
Removing the Covers

RDM Connect scanner has two covers that can be removed in order to clean the image sensor, replace cartridges, or clear paper jams.

Front Cover

Remove the front cover when you need to clear paper jams, replace the franker cartridge, or to clean the image sensor.

1. Pull the extension forward.
2. Grasp the front and the back end of the front cover.
3. Gently pull the cover upwards until it detaches from the scanner.



Caution:
Before you replace the front cover, make sure the extension is pulled forward; otherwise, you might damage the front cover.

To replace the front cover:

1. Make sure the extension is pulled out.
2. Carefully place the front cover over the scanner assembly; make sure that the cover is overlapping the assembly correctly.
3. Gently push the cover down until it snaps into place.

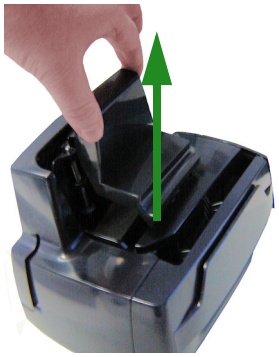
Endorsement Printer Cover

Remove the endorsement printer cover when you need to clear paper jams, to insert or replace the Endorser Inkjet Printer Cartridge, or to clean the image sensore.

1. Grasp the top of the endorsement printer cover.
2. Gently pull the cover upwards until it detaches from the scanner.

To replace the endorsement printer cover:

1. Carefully place the endorsement printer cover over the scanner assembly; make sure that the cover is overlapping the assembly correctly.
2. Gently push the cover down until it snaps into place.



Insert the Franking Acknowledgement Printer and Endorser Inkjet Printer Cartridges

The Franking Acknowledgement Printer Cartridge is an ink stamp that defaces the front of each check with a “Electronically Presented” message. All models are franking-enabled; the franking acknowledgement printer must be purchased as a separate consumable.

The Endorsement Inkjet Printer places user-defined text on the rear of the source item or check. The Endorsement Inkjet Printer is an optional feature. The Endorsement Inkjet Printer Cartridge is included with your unit. Replacements can be purchased by contacting your solution provider or reseller.

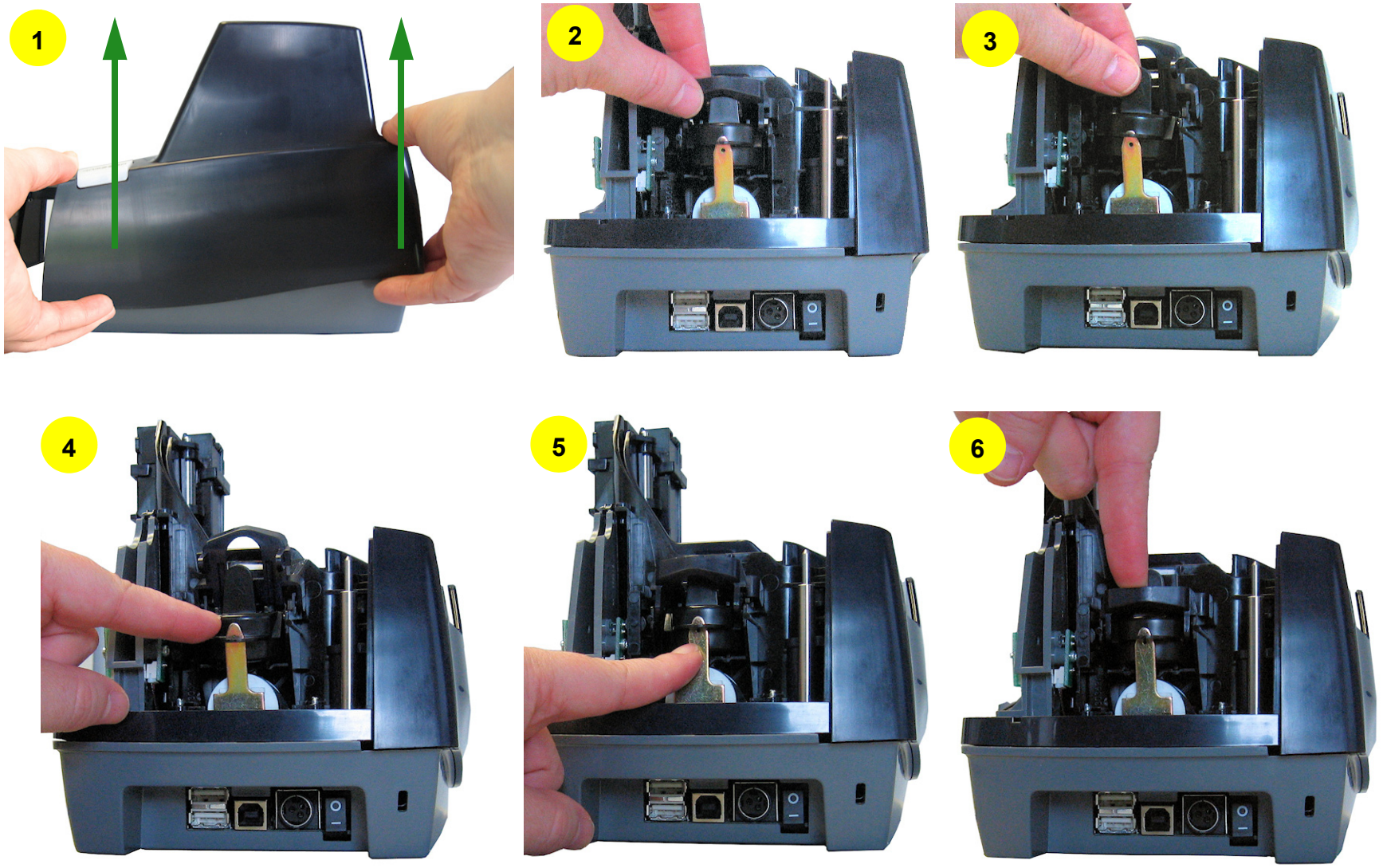
Follow the directions to insert the cartridges into the scanner unit.

Caution:

- Ink may be harmful if swallowed.
- Avoid contact with eyes.
- Damage to the unit or the cartridge resulting from modifying the cartridge is not the responsibility of RDM.
- The ink cartridge is not refillable.
- Not licensed for modifications.
- RDM can change product designs, features, or specifications at any time.

Replacing the Franking Acknowledgement Printer Cartridge

1. Remove the front cover.
2. Lift the franker latch.
3. Grasp the tab on the franker cartridge and lift it up and out.
4. Insert the new franker cartridge by aligning the hole on the back of the cartridge with the metal plate.
5. Make sure that the franker cartridge is in an upright level position so that the franker latch can close over it.
   You might have to push the metal tab in gently to allow the franker latch to swing properly over the franker cartridge tab.
6. Lower the latch over the franker cartridge, and then gently press the latch down until it snaps into the closed position.
7. Replace the front cover.

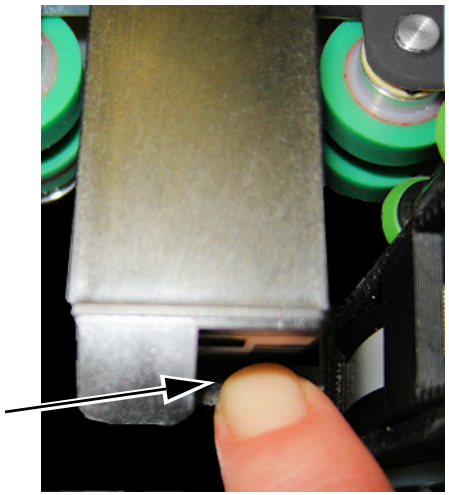


Replacing the Franking Acknowledgement Printer Cartridge

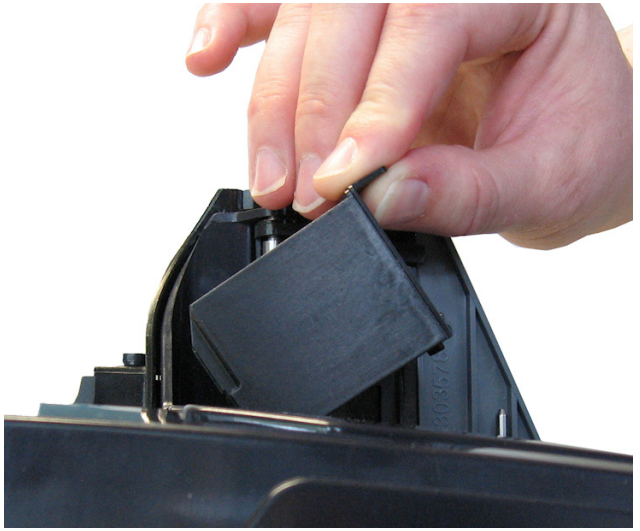
Replacing the Endorser Inkjet Printer Cartridge

When you place the new inkjet cartridge into the holder, make sure that you insert it at the angle described in the following steps. If you do not insert the cartridge properly, it might not make contact with the item when it is scanned.

1. Remove the endorsement printer cover.
2. With one hand, gently pull the inkjet latch forward.
3. With the other hand, remove the inkjet cartridge.
4. To insert the new inkjet cartridge, pull the inkjet latch back.
5. Place the inkjet cartridge into the holder at an angle so that the back of the cartridge is lower than the front of the cartridge.
6. Holding the inkjet cartridge at an angle, push it down into the holder until the cartridge snaps into place.
7. Make sure there is no gap between the inkjet cartridge and the endorsement channel.
8. Replace the endorsement printer cover.



Inkjet Latch



Insert the inkjet printer cartridge at an angle

Connecting the Power Cord

1. Align the flat side of the power connector so that it is facing up.
2. Insert the round end of the power cord into the power port on the back of the scanner.
   Make sure that the connector is pushed in completely; it should click into place.
3. Plug the power connector into the power adapter.
4. Plug the metal-pronged end of the power adapter into an electrical power outlet.
   The LED lights up, and cycles through red and green.
   When the LED is solid green, your unit is powered on.

Disconnecting the Power Cord

Caution:
Disconnecting the power source while the terminal is processing a transaction might cause data loss.

The power connector has a sleeve on it that secures it to the unit. The security sleeve prevents the power connector from being pulled out of the unit accidently.

1. Hold the unit in place with one hand to prevent the unit from falling.
2. With your other hand, slide the security sleeve on the power connector back.
3. While you hold the security sleeve back, firmly pull the power connector away from the unit until it is disconnected.

Drivers

The drivers for your scanner are installed when you install your PC application. There are many applications that support the RDM Connect scanner; most are available from third-party vendors.

If you are not sure where to acquire your PC application, check with the reseller from whom you purchased your scanner, your bank, or your service provider.

Operating the Scanner

Caution:
Do not open the cover or otherwise try to access the inside of the unit while it is in the process of scanning a document.

Preparing Documents

To reduce the possibility of errors and damage to the unit, you should:

- Remove all folds and creases in the document.
- Remove any paper clips and staples from the document.
- Check to make sure that documents are not stuck together.

Feeding Documents

The scanner unit is ready to accept documents when the LED is flashing green. Insert the documents either one at a time (hand-drop mode), or several at a time (auto-feed mode).

Make sure that you place the documents into the feeder with the MICR line at the bottom and facing towards the outside of the unit.

Caution:
If you are scanning documents that are larger than a personal check, make sure that the extensions are pulled out. Documents can be damaged if the extensions are not pulled out.

Hand-Drop Mode

1. Start the scanning process. For example, click **Scan** on your PC application.
2. Place one document into the insertion hopper until the scanner pulls the document into the scanner.
   The document is scanned and processed.
3. Repeat steps 1 and 2 until you have scanned all of your documents.

Auto-Feed Mode

1. Place up to 15 documents into the insertion hopper.
2. If you are required to do so, start the scanning process. For example, click **Scan** on your PC application.

One document is scanned and processed.

3. After the document is processed, click **Scan** again for each document remaining in the hopper.

Swiping Magnetic Stripe Cards (Optional)

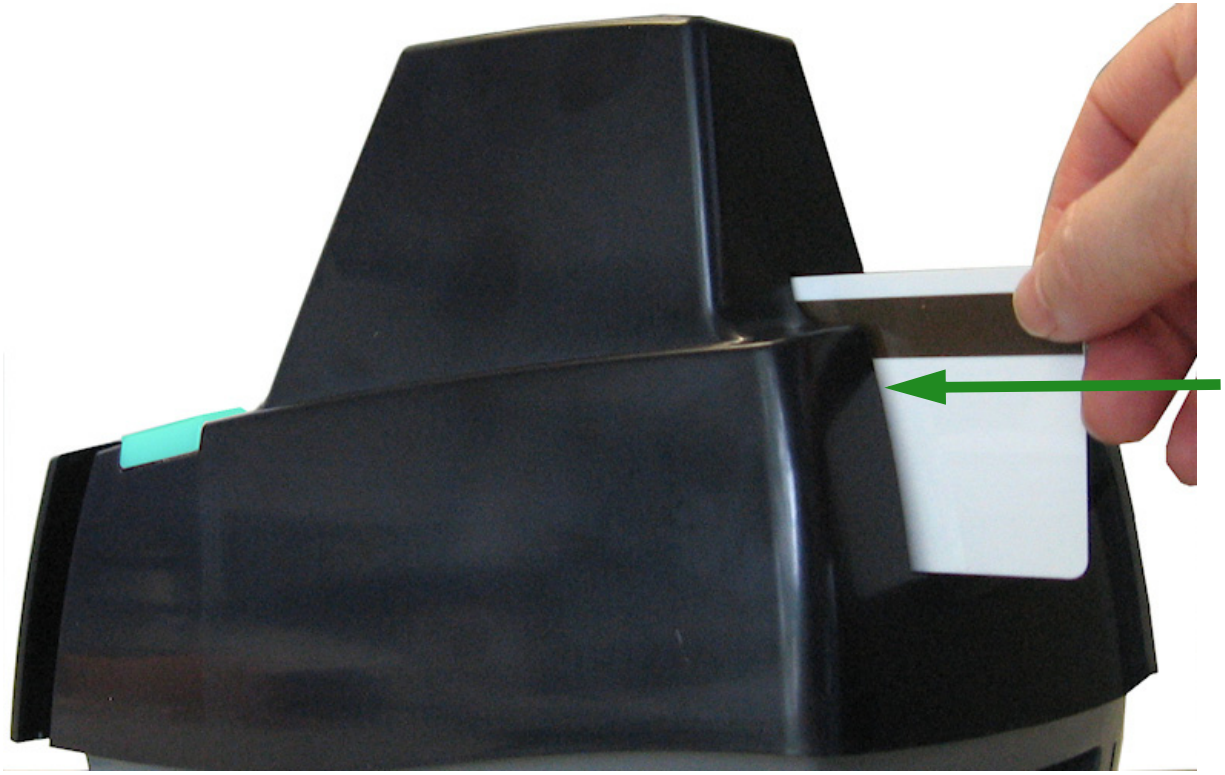
1. Place the card in the slot on the side of the scanner with the stripe down and facing in towards the body of the scanner.
2. Swipe the card either from back to front or front to back.

Imaging Identification Cards

The ID imager uses same track as the document scanner. The ID imager scans both the front and back of the identification card, so it does not matter which way the card is facing.

1. Insert the identification card into the back of the scanner track.

   The card is pulled through the track and exits out the front.
2. Remove the card from the front of the scanner track.



Status Signals

The scanner comes equipped with the default light and sound signals described below.

Default Light Signals

The unit's status is shown through a single, multistate LED (light-emitting diode), which is the light on the top, front, right-hand side of the unit. The table below describes typical status signals and their meanings.

This table applies to newer scanners. Older scanners cycle through the colors when they are powering up and waiting to connect and configure.

LED	Meaning	What to Do
Red (Solid)	The scanner is in the process of powering up or is waiting for the application to connect and configure the scanner.	Activate scanning application and/or wait for the scanning application to configure the scanner.
Green (Solid)	The scanner has been configured and is idle.	Start the software application on the PC.
Green (Flashing)	The scanner has been "primed" by the scanning application to scan a document.	Insert a document into the scanner.
Green/Red (Flashing)	The scanning operation is in progress.	Wait for scanning to complete. Check the scanning application display for instructions.
Red (Flashing)	Exception / Error condition.	Check the the scanning application display for instructions.

Beeper Cues

Single short beep - Indicates that a scanning exception or error has occurred. Check the scanning application display for instructions.

A Typical Document Processing / LED Cycle

1. The LED is **Green (Solid):** The unit is idle.

2. The LED is **Green (Flashing):** The scanner is waiting for a document to be inserted for scanning.
3. The LED is **Green/Red (Flashing):** The scanning operation is in progress.
4. The LED is **Green (Solid):** The scanning operation is complete. The scanner has returned to its idle state.

Maintaining the RDM Connect Scanner

The RDM Connect scanner performs best when all working surfaces are clean and free of foreign material.

Cleaning the Scanner

Caution:
- Always disconnect the power to the scanner before cleaning it.
- Solvents or harsh cleaners might damage or discolor the cabinetry.

Cleaning the Outside Cabinetry

1. Use a damp cloth and mild soap.

Cleaning the Inside of the Scanner Unit

You might need to remove dust and debris from inside the scanner unit.

1. Remove the front cover and the endorsement printer cover.
2. Use a dusting brush designed for use on electronic equipment or a compressed air duster to clean inside the scanner.
3. Replace the covers.

Cleaning the Image Sensor

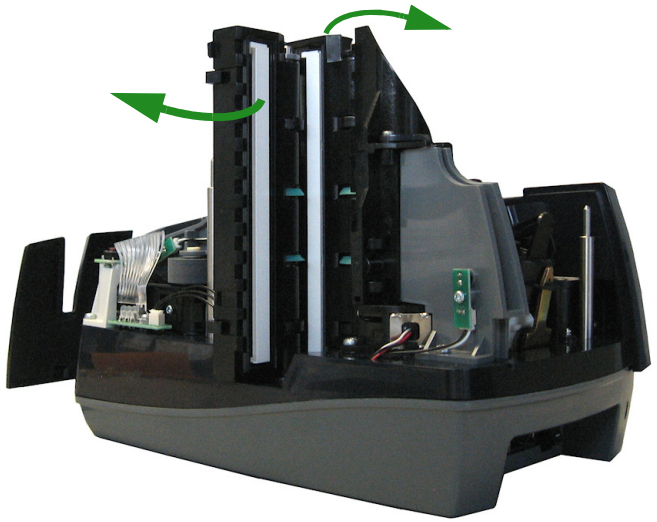
Occasionally, it might be necessary to clean the image sensor.

Caution:

- Always disconnect the unit from its power source before cleaning the image sensor.
- Do not use a cleaning card to clean the imager as it will scratch the image sensor.

1. Remove the front cover and the endorsement printer cover.
2. Open both the front and back panels that cover the image sensor.

   The front panel can open up to 90°. The back panel opens only a few degrees.
3. Use any of the following to gently remove any ink or dust from the image sensor.
   - A lens cleaning tissue.
   - A damp lint-free cloth.
   - A cotton swab dampened with rubbing alcohol to gently clean the image sensor.
4. Clean the glass on each panel thoroughly.
5. Replace each of the covers.



Troubleshooting

In the course of everyday operations, you might encounter minor malfunctions in the RDM Connect scanner unit. Before calling for service, review the troubleshooting steps below.

Device Does Not Respond

1. Ensure that the scanner's cable is still properly connected to the correct port on the back of the unit (according to instructions provided by your distributor).
2. If the problem persists, contact your solution provider or help desk.
3. Make sure that the correct power adaptor is connected to the unit. Change the adaptor, if necessary.

Card Transactions Do Not Function Properly

Test the card swipe mechanism.

1. Ensure that you are swiping the card properly.

   The black magnetic stripe on the back of the card must face downward and to the right.
2. Try using another card to ensure the first card was not defective.
3. If the problem persists, contact your solution provider or help desk.

Specifications

Model Details	
Physical Dimensions	Standard model: Width: 6.16″ Height: 6.88″ Length: 9.38″
Document Size	Minimum: 2.17″ W x 4.4″ L; Maximum: 4″ W x 9″ L Preferred Paper Weight: 20 lb to 32 lb
Auto feeder capacity	Auto feeder with double-feed detect; supports single item insert or group of up to 15 items
Document Collection Pocket	Maintains the integrity of the order of the original source documents

Technical Features	
OCR Font Recognition (optional)	Under application control Alphanumeric OCR A and B font recognition of OCR code-lines for applications such as bill payment
MICR Reader	E13B & CMC7 MICR character set. Uses RDM's Progressive MICR Method for optimum MICR read accuracy OCR E13B MICR Assist
Application Launch Button	Use as a hotkey to start a function, launch an application, or go directly to a Web site (some abilities require use of Service based integration model). The Application Launch Button also provides the units status with its illuminated LED. (Application dependent)
Magnetic Stripe Reader (optional)	(MSR) 3-track, bi-directional, alphanumeric
Identification Card Imager	Duplex Imager; 2 ¼ x 3 ½ with 200/400 DPI
Franking Acknowledgement Printer (printing cartridge sold separately)	15,000 franks or 6500–7000 documents; approximately 2 ½ x "Electronically Presented" messages printed in red
Endorsement Printer (optional)	1 line 1/8″ high text
Dynamic Control of Franking and Endorsements	Based on MICR and image data, an application can decide to stamp a fixed text message on the face of the check and/or to apply an endorsement to the rear of the check.
Image Capture	Duplex Document Imaging Tiff 6.0 file format—100 or 200 DPI—grayscale with JPEG (or no) compression—bi-level with CCITT Group 4 (ITU T.6) (or no) compression BMP file format—100 or 200 DPI—grayscale (8 bpp)—bi-level (1 bpp) Tiff 6.0 images contain MICR line and transaction information in header description tags of check images and optionally OCR line and transaction information in header description tags of bill stubs Image size varies according to document characteristics, file format, DPI and compression, typically 10 kB or less for Tiff 6.0 bi-level with CCITT Group 4 compression
IQA	Image Quality Assurance includes: too light/too dark /skew
Communication Ports	High Speed USB 2.0 (480 MBits/sec) with built-in 2 port hub

Software and Support	
Supported Operating Systems	Windows XP, Vista (32/64-bit), Windows 7 (32/64-bit), Windows 8 (32/64-bit)
Development Software	Twain 2.0, Drivers, Application Components, Redistributable Installation Packages and Sample Applications

Environment	
Operating Temperature	50 to 104 Degrees F
Operating Humidity	10 to 85% relative humidity (non-condensing)

Power Supply	
Input	24 V/1.0 A
Power Supply	100–240 50/60 Hz

Certifications	Industry certifications including WHQL driver certification CSA, FCC A
Warranty	1 year standard warranty
Life Expectancy	5 years under normal usage

Options and Accessories	Part Number
Replacement franking cartridge - Electronically Presented Red Ink	6000-6065
Replacement HP Inkjet endorsement cartridge Black Ink	6000-6060
Replacement AC adapter	302843
High speed USB 2.0 (480MBits/sec) interface cable	5000-40091
OCR A & B font recognition	5050-60100
Connect 1-year extended warranty	EXTW-CONNECT2

Warranty Information

LIMITED WARRANTY:

RDM CONNECT™ is warranted against defects in materials and workmanship under normal use and service for a period of one year after the date of receipt by you. This warranty is extended only to the original purchaser. Extended warranty programs might be offered by your solution provider.

The entire liability of RDM Corporation (the Corporation), distributors of the RDM CONNECT terminal and manufacturers of auxiliary equipment used with the RDM CONNECT and your exclusive remedy shall be, at the Corporation's option either (a) return of the price paid, or (b) repair or replacement of the RDM CONNECT terminal that does not meet the limited warranty and which is returned to the Corporation with a purchase receipt or other proof of date of original purchase which will be required in order to exercise your rights under this warranty.

The limited warranty is void if failure of the RDM CONNECT has resulted from accident, abuse or misapplication. Any replacement RDM CONNECT will be warranted for the remainder of the original warranty period.

The equipment is sold with the understanding that neither the Corporation, such distributors nor such manufacturers will be liable for any damages whatsoever (include, without limitation, direct or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss) arising out of the use of or inability to use the RDM CONNECT, even if the Corporation, such distributors and/or such manufacturers have been advised of the possibility of such damages.

In any case, the entire liability of the Corporation, such distributors and such manufacturers with respect to the RDM CONNECT shall be limited to the amount actually paid by you for the RDM CONNECT. The Corporation, such distributors and such manufacturers disclaim all other warranties, express or implied, including, without limitation, implied warranties of merchantability and fitness for a particular purpose with regard to the RDM CONNECT and the accompanying written materials.

WARRANTY SPECIFICS:

This warranty only covers failures due to defects in materials or workmanship, which occur during normal use.

It does not cover the following:

- Damage, which occurs in shipment;
- Failures which are caused by products not supplied by RDM;
- Failures which result from accident, misuse, abuse, neglect, excessive dirt or dust cause by lack or preventative maintenance measures, mishandling, misapplication, alteration or modification;
- Service by anyone other than RDM;
- Damage that is attributable to acts of nature including but not limited to:
    - Flood, lightning, power surge or static electricity, water damage, fall, theft, or vandalism;
    - Spillage of liquid or objects that have fallen into the equipment;
    - Equipment that has been exposed to excessive heat or unstable environmental conditions;
    - Consumables such as Franker Roller or Franker Assembly, or other RDM CONNECT consumables or accessories such as cables.

RDM CONNECT units with problems found to be caused by incorrectly set configuration parameters (IRN#, Owner Code, Merchant ID, etc.) are not considered defective and will not be serviced under warranty. Warranty is void if any of the external case of the unit has been opened or removed or the unit has, in RDM's opinion, been damaged through misuse or improper care.

Units returned to RDM for warranty repair will be reconfigured with factory defaults and returned to customers. All stored images in the terminal will be cleared. Customers will have the option of having the images uploaded to RDM's ITMS system for archiving or e-mailed to them prior to being cleared from the terminal.